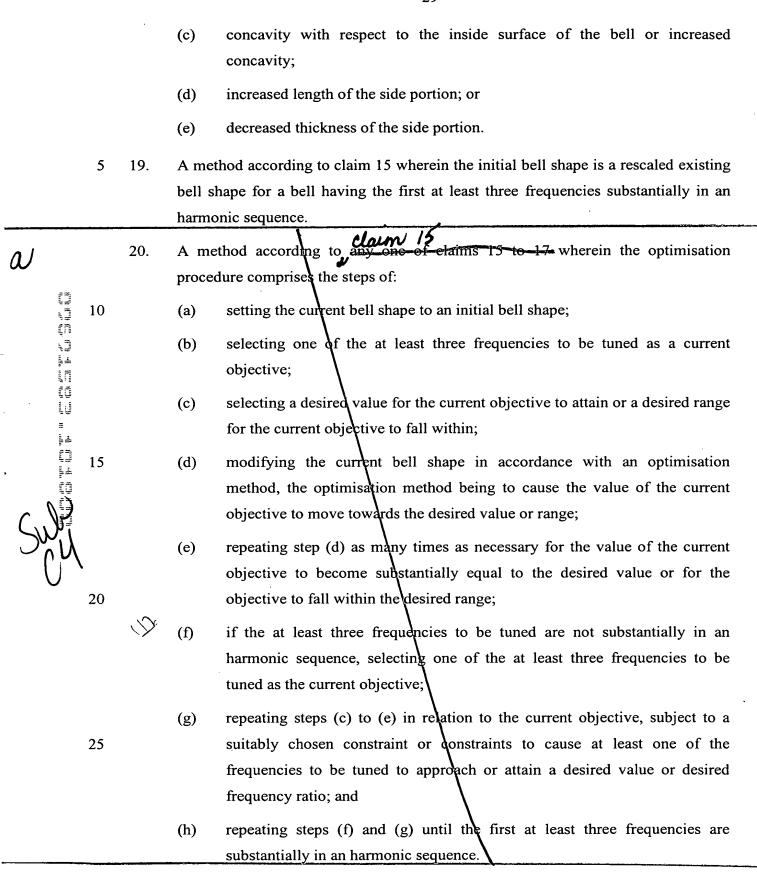
The claims defining the invention are as follows: 1. A bell having the first at least three frequencies substantially in an harmonic sequence. 2. A bell having the first at least three frequencies substantially in an harmonic sequence wherein all the tuned frequencies are due to modes with no ring nodes. 5 3. A bell having the first at least three frequencies substantially in an harmonic sequence wherein, of the tuned frequencies, the frequencies due to modes with no ring nodes are all below any frequencies due to modes with ring nodes. A bell according to day one 4. claims 1-to-3 wherein the bell has a top portion, a 10 side portion and a mouth, the side portion extending from the top portion to the mouth, the outer surface of the side portion being generally in the form of a truncated circular cone. . 5. of-claims 1-to-3-wherein the bell has a top portion, a A bell according to any side portion and a mouth, the side portion extending from the top portion to the mouth, the inner surface of the side portion being generally in the form of a 15 truncated circular cone. folaims 1 to 3 wherein the bell has a top portion, a 6. A bell according to any on side portion and a mouth, the side portion extending from the top portion to the mouth, the outer surface of the side portion being generally convex. A bell according to the of claims 1 to 3 wherein the bell has a top portion, a 20 7. side portion and a mouth, the side portion extending from the top portion to the mouth, the inner surface of the side portion being generally concave. 8. laims 1 to 3 wherein the bell has a top portion, a A bell according to any one side portion and a mouth, the side portion extending from the top portion to the mouth, the outer surface of the side portion substantially consisting of a generally 25 convex portion and a portion generally in the form of a circular cylinder. of claims 1-to-3-wherein the bell has a top portion, a 9. A bell according to the side portion and a mouth, the side portion extending from the top portion to the

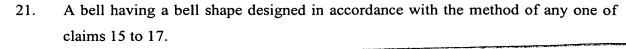
mouth, the inner surface of the side portion substantially consisting of a generally

concave portion and a portion generally in the form of a circular cylinder.

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•		10	chaim.
d		10.	A bell according to any one of claims 1 to 3 wherein the bell has a top portion, a
			side portion and a mouth, the side portion extending from the top portion to the
			mouth, the outer surface of the side portion substantially consisting of a generally
			convex portion and a portion generally in the form of a truncated circular cone.
a	5	11.	A bell according to any one of claims 1 to 3 wherein the bell has a top portion, a
0-			side portion and a mouth, the side portion extending from the top portion to the
			mouth, the inner surface of the side portion substantially consisting of a generally
			concave portion and a portion generally in the form of a truncated circular cone.
		12.	A bell according to any one of claims 1 to 3 wherein the side portion is generally
	10		tapered.
		1.2	
Jr 13.	\	13.	A bell having the first at least four frequencies substantially in an harmonic
			sequence.
		14.	A bell having the first at least five frequencies substantially in an harmonic
<u></u>			sequence.
	15	15.	A method for designing a bell shape for a bell having the first at least three
الم) الم			frequencies substantially in an harmonic sequence, the method comprising the steps
70 65			of selecting an initial bell shape and using the initial bell shape in an optimisation
			procedure for modifying the bell shape such that the first at least three frequencies
			are substantially in an harmonic sequence.
,	20	16.	A method according to claim 15 wherein the initial bell shape is such that, of the
			frequencies to be tuned, all the frequencies due to modes without ring nodes are
			below any frequencies due to modes with ring nodes.
		.17	
		17.	A method according to claim 15 wherein the initial bell shape is such that the first
_			at least three frequencies are due to modes with no ring nodes.
\circ	25	18.	A method according to claim 16 exclaim 17 wherein the initial bell shape has a top
			portion, a side portion and a mouth, the side portion extending from the top portion
			to the mouth, the initial bell shape being selected by introducing one or more of the
			following shape features to a first bell shape:
			(a) conicity or increased conicity;
	30		(b) tapering of the side portion or increased tapering;







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An axisymmetric bell having a top portion, a side portion and a mouth, the side portion extending from the top portion to the mouth, a meridonal cross-section of the side portion being substantially geometrically similar to a cross-section having:

- (a) an outer line formed by fitting an arc of a circle to the three points the rectangular coordinates of which are set out in table 3; and
- (b) an inner line formed by fitting a line to the points the rectangular coordinates of which are set out in table 2.

An axisymmetric bell having a top portion, a side portion and a mouth, the side portion extending from the top portion to the mouth, a meridonal cross-section of the side portion being substantially geometrically similar to a cross-section having:

- (a) an outer line formed by joining a straight line to the two points the rectangular coordinates of which are set out in table 6; and
- (b) an inner line formed by fitting a line to the points the rectangular coordinates of which are set out in table 5.

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